



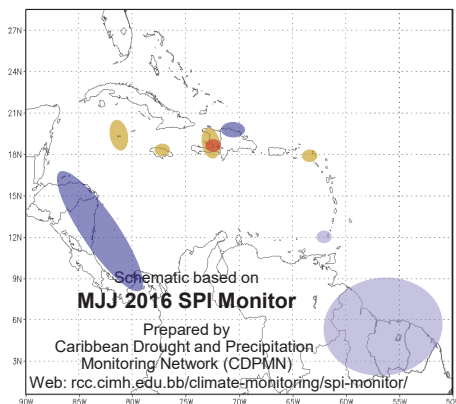
### BRIEF SUMMARY: MAY TO NOVEMBER 2016

May to July 2016 was warmer than usual throughout the Caribbean for that period. Many parts of the C'bean were at least reasonably wet in either May, June or July; bringing (short-term and increasingly long-term) drought relief there, with the exception of the Leeward Islands, which are still in long-term drought.

**September to November 2016:** We forecast above- to normal temperatures across the region. This with high humidity, means it will feel exceedingly hot at times until mid-October. Three-month rainfall totals are likely to be above- to normal in the northern half of the C'bean. By contrast, Barbados, eastern Guianas, Leewards may be somewhat drier than usual. This being the wettest part of the year, a particular concern for any island is the real chance of experiencing extremely wet spells and tropical cyclones, with potential for flash flooding.

### LOOKING BACK:

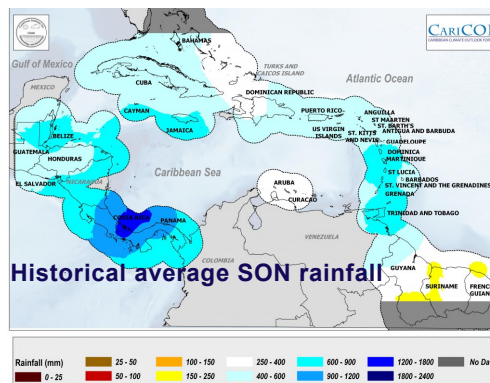
#### May-June-July 2016 (MJJ)



- Exceptionally wet
- Wet
- Normal
- Dry
- Exceptionally dry

### WHAT NEXT?

#### Rainfall patterns September-October-November (SON)



- Belize & C'bean Islands north of 16°N:**  
Sep to Nov - wet season. Usually frequent heavy showers.
- C'bean Islands south of 16°N (except ABC Islands):**  
Sep to Nov - wet season. Usually frequent heavy showers.
- ABC Islands:** mostly dry with occasional wet spells.
- Guianas:**  
Sep to Oct - Dry season with heavy showers at times.  
November - Increase in showers.

### Observations

- ♦ **RAINFALL: July:** Haiti, Martinique, N. St. Lucia, Tobago very dry; W & Central Cuba, N Dom. Republic, Guyana very wet.
- June:** Aruba, E & W Cuba, St. Maarten very dry; W Dom. Rep. very wet. **May:** very dry in Aruba; very wet in Dom. Rep. and N Guyana.
- ♦ **Temperatures: MJJ:** 0.25-1.5 °C warmer than average in most places.

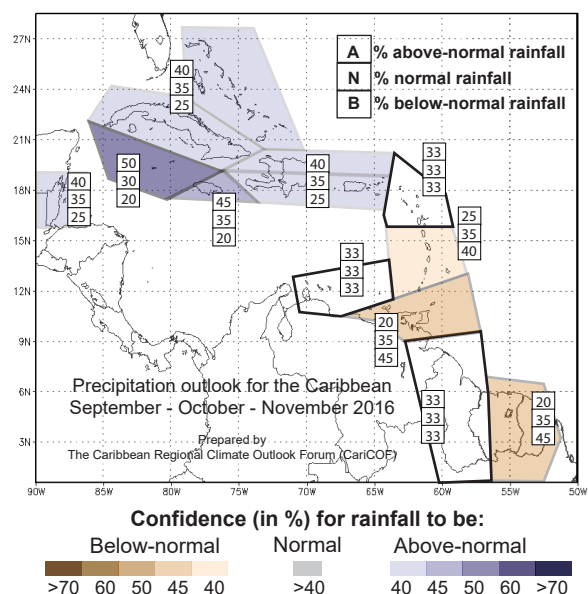
### Notable Climate Records:

- ♦ **WET - MJJ:** 1 location in: Dom. Rep. (400% of avg., incl. a record >800% of avg. in July), Guyana (150% of avg.)
- ♦ **DRY - July:** 1 location in St. Lucia (15% of avg.).
- ♦ **HOT - MJJ:** 10, 3 & 1 territories had locations recording their highest min., mean or max. temp., resp.. Notably, St. Kitts broke all three records, as well as their max. temp. for June and mean temp. for July.

### Notable Impacts

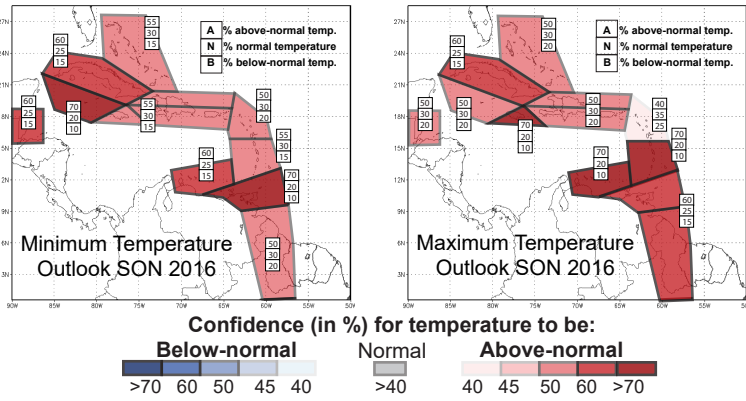
- ♦ Short and long term drought impacts are weakening and becoming more sparse across the Caribbean. However the Barbados Water Authority and St. Kitts & Nevis Water Services department have prolonged water restrictions.

### SON 2016 Rainfall Outlook



SON rainfall is likely to be above- to normal in the Bahamas, Belize and the Greater Antilles, but below- to normal in Barbados, E Guianas, Windwards, Trinidad & Tobago. There is low predictability elsewhere at this time.

Min. and max. temperatures up to November



SON min. & max. temp. in the Caribbean are likely to be above- to normal.

Wet days and wet spells up to November

What usually happens from September to November?

- Number of wet days: roughly 35 to 50 (Guianas: 20-30).
- Number of wet spells: roughly 4 to 6 (Guianas: 1-3), of which 1 to 4 (Guianas: 0-2) are very wet.
- Number of extremely wet spells: up to 2 (Guianas: rare).

Forecast and Implications:

- Fewer wet days in Lesser Antilles: fewer rain disruptions than usual for the peak of the wet season.
- Several wet spells: effective recharge of large water reservoirs, with the possible exception of the Guianas.
- Up to 2 extremely wet spell: serious flash flood potential developing except in the Guianas.

Drought conditions up to November

**Currently:** Most islands are seeing short- and long-term drought relief, but short-term drought is a concern in Cayman and Curaçao.  
**(as of July 31)**  
**Alert levels:** **Drought watch:** Northern French Guiana and Suriname.  
**Long-term Concern:** **Drought watch:** S French Guiana, St. Lucia, St. Vincent and Tobago.

BRIEF CLIMATE OUTLOOK - December 2016 to February 2017

Temperatures across the Caribbean are forecast to continue to reach uncomfortable, above- to normal levels until mid-October. There are indications (*medium confidence*) that the early dry season will be wetter than normal across much of the region, except the Bahamas and Cuba. Rains may prevent or delay surface dryness going into 2017. However, above average rainfall could increase the risk of long-term flooding until the end of 2016.

For detailed temperature and precipitation outlooks for NDJ 2016-'17, please visit [rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/](http://rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/)

What influences the next season?

El Niño Southern Oscillation (ENSO)

**Recent observations:** In recent months, sea-surface temperatures (SSTs) in equatorial eastern Pacific (NINO3.4) have decreased to 0.5°C below-average, which equates to borderline La Niña conditions.  
**Model forecast and guidance:** A large majority of models suggest a transition to either borderline La Niña or ENSO neutral conditions by September, with 55% confidence of La Niña conditions in place for SON and DJF. Where present, La Niña conditions are weak in the models.  
**Expected impacts on rainfall and temperatures:** A shift towards above- to normal rainfall is noted for much of the C'bean towards the end of the year due to slightly reduced winds in the upper atmosphere. This reduction allows for stronger, local showers to develop. A higher frequency of tropical storm during La Niñas also can contribute to higher rainfall totals.

Climate conditions in the Tropical North Atlantic and Caribbean

**Recent observations:** SSTs 0.5-1°C above-average within the C'bean and the Tropical North Atlantic; trade winds were calmer than usual.  
**Expected conditions:** Slight positive SST anomalies are expected throughout the tropical N Atlantic by SON and DJF; strength of trade winds is hardly predictable at seasonal time scales.  
**Expected impacts:** Warm Atlantic temperatures increase evaporation and local deep atmospheric convection, potentially increasing precipitation. Average circulation patterns during La Niña periods may also contribute to increased frequency of developing tropical storms.  
**Note:** Until the end of September, intrusion of dust and dry air associated with the Saharan Air Layer (SAL) and the trade winds may decrease rainfall chances. This is hardly predictable at seasonal time scales

Climate outlooks - background

The Caribbean Climate Outlooks are prepared by the Caribbean Regional Climate Outlook Forum (CariCOF). The Caribbean Institute for Meteorology and Hydrology, in its role as WMO Regional Climate Centre in demonstration phase, coordinates the CariCOF process. Contributors to the Outlooks are the Meteorological Services from the region. For more information on how the outlooks are produced, please visit [rcc.cimh.edu.bb](http://rcc.cimh.edu.bb).

The Precipitation and Temperature Outlooks are issued in the form of a map, which shows regions where the forecast rainfall or temperatures have the same probabilities to be:

- Above-normal (A) - within the wettest/hottest third of the historical record
- Near-normal (N) - within the middle third of the historical record
- Below-normal (B) - within the driest/coldest third of the historical record

DISCLAIMER

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